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THE

FARMER AND PLANTER,

DEVOTED TO

AGRICULTURE AND HORTICULTURE,

DOMESTIC AND RURAL ECONOMY.

ILLUSTRATED WITH ENGRAVINGS OF


FARM IMPLEMENTS, BUILDINGS, DOMESTIC ANIMALS,

SHRUBS, FLOWERS, FRUITS, &c.

EDITED BY

GEORGE SEABORN AND J. J. GILMAN.

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**VOLUME II.—1851.**  
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PENDLETON, S. C.

SEABORN & GILMAN, Publishers and Proprietors,

1851.

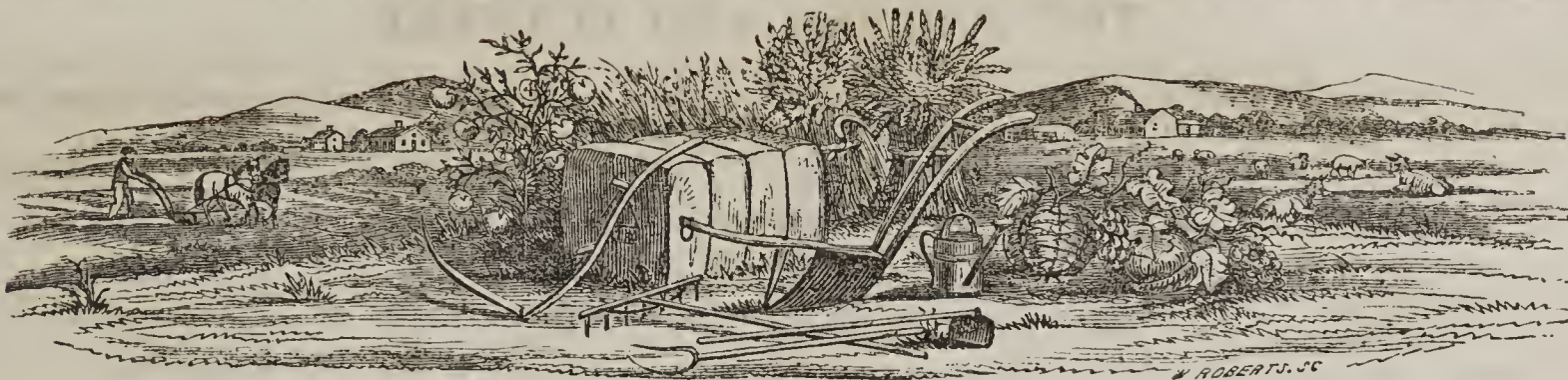
THE HISTORY OF THE UNITED STATES

OF THE
NORTH AMERICAN CONTINENT

FROM THE FIRST DISCOVERY TO THE PRESENT TIME

BY

JOHN F. JOHNSON



FARMER AND PLANTER.

DEVOTED TO AGRICULTURE, HORTICULTURE, MECHANICS, DOMESTIC AND RURAL ECONOMY.

VOL. II.

PENDLETON, S. C., FEBRUARY, 1851.

No. 1.

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Editors and Proprietors.

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Volume Second.

WITH our last issue closed the First Volume of the FARMER AND PLANTER, and whether it acquitted itself in a manner entirely satisfactory to our readers perhaps would be becoming in us to express the hope rather than the opinion. It certainly was an object of ambition with us that it should do so, and that it to some extent succeeded we are led to believe from the many private letters received, as well as public notices through the press, approving its character and conduct. The design of publishing a monthly journal, devoted exclusively to the rural pursuits of the South, was conceived under the impression that a wide field was unoccupied, hitherto wholly vacant or in part covered by papers published, many of them, at such remote distances and under such circumstances as to give them no claim to our support. It was thought an agricultural paper established in our midst would be better adapted to our circumstances than those designed for soils, climates and products entirely different from ours. It was believed it would assist our progress as a people, and exercise a salutary influence over our social condition, as well as industrial pursuits. It was thought it would afford new facilities for interchange of thought and sentiment, among planters, and give that wholesome impulse to improvement which papers of a like character, with so much credit to themselves, have done in other states and in other countries. Nor have we seen any thing during the lapse of the year, that has in any way changed or shaken

these convictions. Observation and reflection have given strength to them. And as we enter upon a new volume, we call upon the friends of the enterprise, and all under whose eye these lines may fall, to reflect upon the events in the midst of which we are standing, and upon the importance of advancing that interest in which the South has more at stake than almost any other people in the world. This interest has summoned to its defence from Federal oppression the ablest talent, at an expense of millions of money, and now is not the time for relaxing. The spirit of the age is *progressive* and *aggressive*. The arts and sciences are advancing. Every day develops some new secret of nature, some great source of wealth and prosperity. Enterprise is interlacing every State with rail-roads and plank-roads. Telegraphic lines are extending to almost every considerable town. The press is sending its sheet to the humblest cabin. The ship-yard hums busily with its preparations for a line of steamers of magnificent proportions to connect our own with foreign ports. The struggle for power and the ascendancy is to be tremendous, and what part is the planting interest to take in this conflict? Is it thought to have no concern in the matter? If so, a most woful mistake! In it is involved *all property*, but more immediately *that species* against which there is so desperate a warfare. There ought to be a league amongst planters as such. We mean no formal bond, but a general determination, a common understanding, embracing every tiller of the soil, to *increase the statistics* of plantation produce. The moral power of such, when prosperous, and annually increasing, is little short of omnipotent. It is an able diplomatist. It is a cogent reasoner in senate halls. It provides for the worst, and is a bulwark, a tier of cannon, against aggression from any quarter. Let us not be misunderstood. We disclaim all allusion to political issues, and leave all matters relating to politics in the hands of others. It is our purpose to devote our sheet to agriculture in the true and comprehensive sense. The field is quite sufficient for our ambition, and the subjects to be discussed numerous enough for our taste. If this sheet can be instrumental in promoting a spirit of improve-

ment among those who cultivate the soil; if an impetus can be given to the practice of plantation economy; if planters can be led to see more clearly how mighty is the archimedian lever within their reach, and induced to profit by their means of independence and power, enough will have been accomplished to satisfy any reasonable aspirations. The achievement would be one of glory and fame. To accomplish this end we invite, may I solicit all classes to contribute to this volume. Among our valued correspondents of last year, were numbers unaccustomed to writing. They were men of thought and observation, influenced by the desire to benefit and be benefitted. We want more of such, as well as men of scientific attainments, and have no fears of *too many*. If there should not be space the first issue for the communication, it will lose nothing by being reserved for another. To such we say the cause forbids you to put off until you become polished writers. Do not wait until you have some brilliant report to make. No fault is more common or more injurious than this. Reports of enormous products not unfrequently are unfortunate enough to make practical farmers incredulous, and are consequently not always best. Small matters should not be overlooked. Observation should be close, and when an account of an experiment is given, it should be minute. Failures in experimenting ought to be given with the same candor as success. Old prejudices against "book farming" may thus be made to give away. Agricultural reading will gain new relish and become more general. We have the further injunction to make, that care be taken to write the communications legibly, as the only sure means of preventing errors.

We return our thanks for the encouragement thus far received from contributors and subscribers, and beg to express the hope that our list of both will be greatly increased this year. If less than doubled it will be a disappointment. At any rate, we shall make improvements in the paper, but the extent must be governed by the increased number of subscribers. Hitherto our reward has been the approbation of the friends of improvement, and we cannot be expected to let our expenses go beyond the receipts, much

as we may wish to improve. We would say to our readers, if this journal is such a one as you want, or if it can be made such by your contributions, nothing is easier than to give it the support required. Upon your favor is our dependence. A general effort on your part would place it beyond contingency. The number of subscribers might be quadrupled and the object secured. If, however, the paper is not adapted to the noble ends designed, let it be consigned by neglect to the oblivion it merits and supply yourselves elsewhere.

Sweet Potato Crop.

THE productiveness and value of this crop, as an article of food on the plantation, is very happily shown in the annexed paper, read a year or two since before the Black Oak agricultural society, by Maj. Samuel Porcher, well known to our readers. The name will be sufficient to commend it to a careful consideration.—What a noble example is to be found in this venerable planter. During his whole life he has been systematic, observant, and energetic in all the operations of his plantation. He has conceived and carried out improvements on his plantation that, to ordinary minds in the beginning, seemed visionary and impossible. His success in planning and executing his embankment is honor enough for one man. He has lived to see the system complete, the work a profitable outlay of money, and his policy and plan followed by others.

He has reached a number of years rarely allotted to man, and is yet freely opening his store-house of knowledge and experience for the benefit of his fellows.—We are informed he has made a second and more minute report upon the same subject and hope a copy may be forwarded to us for publication. It would be well for agriculture if every society in the south were doing what the Black Oak seems to be.

The object of the following report, is not only to give the quantity of the food the potato crop affords; but to remove the prejudices of many persons against feeding work animals with potatoes.

“The crop of potatoes at Mexico in 1848 was thirty-five acres. On the 10th of August I commenced giving potatoes to the little negroes; on 18th to feed all the negroes, (the consumption of corn, 250 bushels per month,) and continued to the 1st of Feb. 1849. I feed fifteen mules and one horse, from the 1st of September to the same period, and sixteen oxen. I give no grain whatever to any of them during that time, and they were continually at work. One item of their labor, was to carry manure on 261

acres of land, 36 loads to every acre.—Sixty bacon hogs were fattened from the same field, and no grain whatever given them. Not including the consumption of potatoes by the negroes from the 10th to the last of August, and only taking the five months, from the 1st of September, it will be seen that 1750 bushels of grain would have been required, equal to 50 bushels of grain to the acre. Six quarts being the usual feed for each mule, the quantity of grain required for five months would be nearly 500 bushels. I do not undertake to estimate the number of bushels of grain saved, in fattening the sixty hogs.

As it may be expected, some notice of the preparation will be stated. I usually put half a bushel of cotton seed on each row of 150 feet; the seed is strewed in the alley; and about 20 mule cart-loads of pine-straw and leaves strewed on the cotton seed to each acre, and listed. This is generally done in January; it is suffered to remain until about the middle of March; the beds are worked three several days before planting. The object is, having collected much of the grass seed in the first operation, each succeeding drawing up of the bed secures it. I never plant the same land two years in succession. My experience has convinced me that for the two following years, the cotton on the potato field is the best part of the crop; but, to obviate the plant dying, I always have the cotton-bed made up in January. I consider it indispensable that the beds should be made up in January.

I have for the last two years succeeded in keeping the root potato to about the middle of February: the mode adopted was by putting not more than 30 bushels in a bank; cover the banks at night with straw; do this for three days, then cover well with straw, and then with earth, leaving no air-holes.

Cattle Feed.

HAY is the food for cattle during the winter. If they can get good hay enough during the cold season, they will do very well. It is not always that the farmer has a sufficiency of this for his stock, and hence it is useful to know the comparative value of other articles which may be used as substitutes for it. It is also more agreeable, and we think more profitable, to mingle other articles with hay. We have prepared from various sources the following table:

Taking good hay as the standard, 100 pounds of hay equal

276 lbs.	of Carrots,
300	“ Ruta Baga.
317	“ Mangel Wurzel,
201	“ Potatoes,
495	“ Common Turnips.

By calculating 60 lbs. for a bushel of any of the above roots, it will be seen that one ton of hay equals

91 bushels	of Carrots,
100	“ Ruta Baga
105	“ Mangel Wurzel
67	“ Potatoes,
165	“ Turnips,

From this it will be seen how much

fodder you get of each per acre, compared with good hay.

In regard to straw, experiments have established the following estimate as very near the truth:

100 lbs.	of hay equal
272 lbs.	of New Wheat Straw,
166	“ Barley Straw,
169	“ Pea Straw,
94	“ Clover Hay.

—Maine Farmer.

Mixed Husbandry.—No. 1.

BY M. W. PHILLIPS.

MESSRS. EDITORS:—Up to the present, I have not had time or inclination to work in my usual avocation. Much writing, some travel, reading, &c., together with home engagements, have kept my mind so much engaged, that when I had time, these matters interfered so I had not the inclination to thus reply to your request. And even now there is some difficulty—the subject.

As a Southerner by birth, a native of your own State, I would like to be instrumental in aiding my brethren. This particular juncture of affairs makes it more obligatory. We are in a critical position, but all depends upon ourselves. A free people, deserving freedom, can ever maintain that position—or die covered with a fame “more lasting than brass.” That we may be prepared for the event, let us cast about us, and after mature deliberation, adopt what will be best for our condition. Speaking as a countryman, as a planter and farmer, I must give it as my opinion, that each one of us should combine the planter and the farmer. And I do this believing it best in all times and under all circumstances.

I learn many of your readers have desired to see my opinions. This is flattering, indeed—and especially coming from my native State—but I hope I will not be otherwise than humbly desirous, of being worthy of such a favour. I allude to this, in the outset of my writings, as I always do, to caution one and all from placing so much reliance upon any man's opinions, as to adopt them without strict trial—“prove all things and hold on to that which is good.”

After living among a planting people for twenty years—seeing them make cotton to buy all else—after battling against this dogma here, I need ask no excuse for doing so through your columns. I believe it to be the only pure doctrine, and that we should all approach as near as practicable to a mixed husbandry.—Thus embracing the planting of cotton, rice and sugar, with the growing of grain.

rearing stock, and producing a part, at least, of our home supplies. Really the arguments appear so self-evident to me in favor of this policy, that it is as difficult for me to arrange them, as to attempt proving two added to two make four.—Yet there are many, even now, who hold it is better to make cotton at \$50 per bale (of 400 lbs.), and buy pork, and even corn, than to grow corn and raise pork. Were we to act thereon two years, what would be the result? Four million bales—cotton worth 3 cents, corn worth \$3, pork selling at 25 cents—(these two latter prices I have had to pay). But the converse. Let each of us make our own bread, meat, 10 lbs. of wool per slave, raise a colt to every five, be able to spare 1 lb. of butter per week for each hand, make our own axe-handles, smoke our own cigars, drink our own wine, spend our summers as near home as we can find good health, &c. What would be the result? Do I err in putting cotton at \$50 per bale, of bringing to our side all people as our friends? Do you ever see an independent man, if honest, sober and industrious without a host of friends?

It is said by many—who will buy our cotton, if we do not buy in return? As well let a hungry man, with cash in his hand, say he will not buy food! Our cotton is needed—the world cannot do without it, and if we cannot sell so much, we will not need such large sales, or large prices, nor have so much to sell. The practical question presents itself—when and how shall we begin? At once, *now*—if not before, make it a part of your duty to increase your resources by saving manure. No odds as to the present fertility of your land, make manure and save it. By doing so you will necessarily be able to increase your crop. Cut down your broom-sedge and haul it into your horse stables,—cut down corn stalks and haul them into your horse and cow lots—rake up leaves, and resort to all known means of increasing quantity, and strive to improve quality by aid of dead carcasses, wash from kitchen and quarter, ashes, and lime, when at a fair rate. This, by being used on your corn field, will give you a double, treble, aye, if used liberally, may in many places, quadruple the former yield. And when you prepare for corn, give land an honest plowing, and deep at that, then plant enough rows—but be sure to have them long enough—and thus you will make corn in abundance, and be certain of cheating the Kentuckian out of 5 cents for his pork. I have noticed it all my life, that the planter-farmer, who had corn always to spare, had very soon no debts, and a little money to lend to his imprudent neighbor. Deeming it good policy not to feed too high, I beg to close for the present, to be again resumed in the next number—the editor willing.

Edwards, Miss., Dec. 29, 1850.

To the enquiry of G. C*****, we would say, that the notice is in type, but we find, when it is too late to remedy, that it is crowded out. [Eps.]

Embanking—No. 2.

MESSRS. EDITORS:—Your very complimentary letter of the 1st January has been received, and I will with great pleasure reply to your questions in the best manner I can.

Question. 1st. You desire to know the details of the labor?

Answer. There should always be a centre ditch, 4 feet wide and 4 feet deep; and, in passing through uncleared land, I thought it prudent to make two ditches, leaving a space of 6 or 8 feet between. I generally found I required an excavation of not less than 60 feet, and three feet deep. I commenced 100 feet from the base, for the easier tasking the laborers. I excavated by 12 feet ditches; the first I sunk 4 feet, in order that the water should be drawn as far from the bank as possible, on account of the cray-fish—parts of the bank required 80 feet. All the earth should be taken from the outside, which, for the want of experience, I did not do at first. The only excavation which should be in the inside, is a ditch about 60 feet from the bank to take off the weepings. Although our land is clay, it is porous, and the water permeates; but I have not found it dangerous, and for several years it has ceased to do so through the bank. I have boards for each wheel-barrow to roll on, which when necessary must be elevated on crutches. I recommend cast-iron wheels as being more economical than your own carpenters would make, unless ironed by your own blacksmith. I would particularly recommend the gudgeon to run through the handles of the wheel-barrow, not on iron. I have had them worn off in a fortnight, and the wood lasts much longer than would be expected. I cannot venture to state the task—the various distances to roll the earth, and other circumstances, render it impossible for me to do it.

Q. 2nd. What is the cost per mile?

Ans. This is difficult to answer.—Wishing for my own satisfaction to form some idea of its cost, I kept a regular account of the number of hands it would take to make a bank on a base of 40 feet, 12 feet high, and 170 feet in length, and it required 280—the average height being 11 feet—some parts of course, were lower, but others as many as 15 feet. It would depend upon what would be the hire of labourers.

Q. 3d. Do you think the embanked land as suitable for short cotton as your high land?

Ans. It is much more so. With manure on the latter, and without on the former, it is more so. I can, in consequence of the difference in the price, make more money by the long cotton. My high land is congenial to the long staple, and by manuring is remunerating.

Q. 4. All things considered, do you regard your crop as certain in this, as your high lands?

Ans. Except in such floods as we had in 1840 and '41. Take a series of 10 years, and they would have been much more so. When I commenced the work, my idea was, that if I lost one crop in three, I would still be a gainer. In corn it would be more than double. I have always manured a part of the crop, and kept the other parts up by resting them two years at least. For several years past my son has greatly increased the quantity of manure, and will still go on increasing. Bomar's mode of converting leaves and pine straw, has been a great auxiliary.

By the last mail I sent you one of the annual reports of our Agricultural Society, containing an article on the value of the sweet potato for working animals, and in which the quantity of manure is also stated. I made a verbal report in 1850, still more favorable, which I was requested to put in writing. I have pursued the same plan, not giving any grain, and in the three years I have not had a sick horse or mule. If washed clean there can be no danger, and we have a simple machine for doing it—I give salt often.

Q. 5. Do the embanked lands stand the drought better than the high? Do they stand the wet as well?

Ans. Our swamp lands, the embanked included, are remarkable for both. I can work them sooner after a heavy rain than I can my high lands.

I have now, gentleman, answered all your questions—but fear not satisfactorily. In endeavoring to be minute in my answers, I may have committed a trespass on your patience—yours did not on mine. I assure you—my only regret is, that I could not do it more satisfactorily. In this section it is believed cotton does not do well after corn and peas, and generally part is kept for cotton, the other for corn. We have lately had a freshet, during which I had the gratification of seeing my oat crop put in the ground, the water against the bank, without which the land would have been under water. Oats are very productive on these lands, and are apt to fall. I have made as much as 70 bushels, but would take 35 as the average.

I am gratified in the hope that I shall be honored by a visit from you, when it will afford me great pleasure to accompany you to see whatever you may desire. I had forgotten to answer the question relating to the draining.

A plantation which I have not far from the Eutaw, suffered in very wet seasons, and part would be inundated from a swamp adjoining. I purchased the adjoining tract, and commenced a ditch

about 12 feet wide and 6 deep, by which I reclaimed about 150 acres, which is more dry than the plantation I intended to benefit. It has, however, proved a great advantage, and I have 150 acres to remunerate me for my labor. The work was done as here without affecting the crop. The fall in the swamp is very little. My son had to continue his drain through the tracts of several persons, (by permission) who had not the means of doing it themselves, but can, when they desire it, avail themselves of his drain the whole distance, three miles. In the part reclaimed was found a fine marl bed, which my son has used freely.

Respectfully yours.

SAMUEL PORCHER.

Mexico, (S. C.) January 24, 1851.

Turning over Land in the Fall.

This is a subject full of interest to a practical farmer. I once took it for granted, from what I had read, that of course plowing stubble land in the fall with large turning ploughs, was best for all kinds of soils, and in all climates. But experience has convinced me that this is a mistake. In deep, loamy bottom lands, or where there is little or no silex in the soil, it may be best, and I have no doubt is so. In a northern climate where there is a great deal of vegetable matter on the surface, and where the soil is stiff, deep turning up in the fall, would be of great service. There the land is covered with snow for many months, and this protects the soil from the heavy rains of winter, and in March the drying winds are ward off, while vegetable decay under a warm covering of snow goes on, and all the gases are retained and impregnate the soil in the process of decomposition. On our light sandy soils that are free and porous, it is exactly the reverse. If you turn over with large two horse turning ploughs our stubble land in the fall, and have a coat of vegetable matter beneath, the rains of winter fall and the water percolates through, taking off the lighter and nutritious parts of the soil which settle beneath, and leave the harder and more barren parts on top. Then the winds of March come and seem to take all the substance out of the surface entirely. If we had it all covered with deep snow as at the north, it would be protected, and the warmth of the covering would enable decomposition to go on, making it fertile. I have tried it often, and never thought understandingly of it, till this last spring.

In 1849 I had two horse ploughs running early in the fall, commencing the first of September, and kept them until the 20th Nov., running every day the land was dry enough, (for nothing injures

land more than to plough it wet), and the work looked beautifully. You could scarcely see a spear of grass or any stubble where they went, all being entirely covered by the ploughs. I took every pains, and went so far as to have no water settlers in every land, but closed all by even plowing in oblong circles, I was so fearful that the last furrow or water settler in the land, might make a drain in any rolling place and become almost a ditch by spring. The winter rains fell, and when spring came, the surface seemed to look barren, the sticky clay part of the soil was baked by March winds on top—the mica and calcareous particles of earth were beneath. I planted cotton on it, and it was hard to stand, the tap-root not finding solidity beneath to adhere to. It seemed to perish out. It never grew well the whole year. True, we had it very dry in the summer, immediately after the coldest and wettest spring I ever saw. But I had one field of stubble where the ploughs were stopped by rain, in Nov., and it ever after was too wet, or it did not suit to go back until March. I broke the balance in March with long keen bull-tongues, and planted first week in April, after bedding right after the bull-tongues, and you could see the difference the whole year. The cotton planted on the stubble broken in March, looked better and yielded a full fourth more than the other.

It strikes me that the best plough to break up most of up-lands in the Southern country with, is the long, deep bull-tongue or a subsoil plough. It is true, it takes much longer to do it, and it does not look so well, but it leaves the soil more mellow for a greater depth, so as to retain moisture in summer under our parching sun, and does not put the barren part of the soil on top. The theories to the contrary are for the most part taken from experience on northern soils, with a totally different climate. If we had their long winter freezes, and deep snows to cover our soils and force decomposition and fermentation, and retain the gases, it would do to put all our stubble under with large two horse turning ploughs early in the fall, but I am satisfied it will not suit our light free soils in the South, where the winds of March are so exhausting.

A PRACTICAL FARMER

The Cherokee Country of Georgia.

MOUND FARM, Hancock Co., Ga., }
January 10, 1851.

MESSRS. EDITORS:—It is with some effort that I overcome my lazy habit, confirmed on me by long continued bad health,

to contribute my little mite towards the success of your valuable paper; for let appearances be ever so contrary, I really feel a lively interest in your success, and I can now think of no subject that will be likely to interest so large a portion of your readers, as a talk about our new *Cherokee counties*. I mean those West of the Altoona mountains, in Georgia, as they are attracting much attention from the citizens of Carolina and Georgia, and are in some respects very different from any soil or climate in either State, being more calcareous and more humid than any lands in the same latitude or altitude.

I have spent a part of three summers in passing through, looking and enquiring about the country, and am now only able to throw out some suggestions for what they are worth; for, really, I am inclined to think that eminent success there requires a peculiar agriculture, not taught by any of my reading or experience, and only to be attained by study, practice and sound discretion. The land is very fertile, but in cotton it can never successfully compete with the best cotton sections, because the picking season is too short, and the best crop of bolls too likely to be immature when killing frost comes.

Though the lands are so fertile, I have never yet seen a bushel of fine, white wheat. It is all dark or red, and generally appears badly filled. Though the lands are rich and calcareous, I think it much more expensive to get them well set in perennial or turf grasses, than East-Tennessee or Kentucky, and less lasting when turfed. And the same remark is applicable to red clover. So you see they are best adapted to neither cotton, wheat nor the grasses, very important products in any profitable system of agriculture. I can't think that sheep will ever do very well there, for the soil retains too much moisture. I believe it is a settled maxim that sheep require a dry soil and atmosphere, to be healthy.

These lands are situated on the great highway from the Mississippi valley to the Atlantic, of exceeding fertility, of a fine altitude, and generally very level, interspersed with picturesque and never failing water courses, well adapted to the most cultivated tastes, or the wants of every economical utility that water-power is applied to. The surface of the country, though sufficiently level for the most successful agriculture, is beautifully undulating, and in some places romantic—still it has too many *neithers* about it, and

should be well studied before a man makes large investments, if profit is his aim. I think it finely adapted to corn, oats and Irish potatoes, and probably our corn-field pea, and moderately so for rye, turnips and fruits. Probably as great a variety of tolerably developed fruits can be grown there, as any section I could point to—though apples, pears, cherries, currants, and that class, will do better farther north; and peaches, apricots, figs, and melons do better farther South.—Though most of what we call grain, grow so well there, without economical grasses, they can't compete with other stock raising sections; and even if cotton and tobacco were to grow so as to pay a tolerable profit, in competing in the general markets, the lands are so calcareous and require so much manure to keep them up, that I must think it would be too expensive, without clover or turf grasses. It is true, their winters are shorter and milder, and require less food to winter stock, still I think the difference is not equal to the advantages further north in raising stock, though they can grow corn cheaper there than farther south, the difference in the picking season, and the uncertainty of the crops maturing, more than counterbalance that advantage in cotton culture. They may to some extent make the corn-field pea a substitute for clover as a fertilizer, but it can never be so economical—and they may make the turnip a green crop for winter, but not entirely an economical substitute for the grasses. Irish potatoes I should think to be a valuable crop to a certain extent, as there is so fine a market along the line of the different rail roads. They could be made, I think, to supersede the northern potatoe in our market.

If they would employ all their water power in propelling machinery and manufactories of different kinds, they would make a good market for all their surplus provisions and that would seem to supply their peculiar wants; but then the question would come up, how to keep those calcareous lands supplied with good wholesome food or fertility.

I have, dear sirs, given you these crude suggestions to make what use of you please, and my reason for doing so is, I see a great excitement among substantial business men to purchase and settle there; and I fear many will be disappointed in the result from not calculating carefully the pros and cons—the advantages and disadvantages, or the peculiar capabilities of the country and the markets on which it is depending. I have no doubt of its ultimately being one of the most interesting, populous and wealthy sections of the south, but I fear that many, very many indeed, will lose, despond and depart before they learn how to make investments there, and to shape their means and their efforts to the best results. At the present price of land, the loss of a few years is a serious matter.

I have no motive in writing you this

but to promote the *true interest*, not the *speculative interest*, of an exceedingly interesting section of our country, and if I am mistaken, as I suppose is very probable in some things, it will have the effect of eliciting truth, my only object.

Yours truly, I. S. WHITTEN.

The Lincoln Grape.

LINCOLN, N. C. }
January 2nd, 1851.

Messrs. Editors:—I regret that an answer to your letter, asking information in regard to the Lincoln Grape, should have been so long delayed. At the time of its receipt I was constantly engaged in the duties of my profession, and since have been absent from home. I will now, however, give you a full history and description of the Lincoln Grape, and if an opportunity offers, send you a few of the cuttings.

A few years ago, I commenced a small experimental vineyard, that I might have an opportunity of observing what grapes were best adapted to our soil and climate. I began with a few foreign and most of our cultivated native varieties, and since have taken particular pains to enquire for, and procure, accidental seedlings, which have a reputation for excellence, from this and the surrounding counties. So far as my vines have yet come into bearing, the grape we call the Lincoln, I prefer to any other, and such appears to be the opinion of all who have visited my vinery.

With us grapes are liable to the following casualties: an insect deposits its egg in the young plant—they rot at different stages of their growth—but that which is most discouraging, is the blight, which generally commences when the fruit is nearly grown or about the time it changes color; the stems begin to wither, the grapes shrivel and the prospect for a crop is lost. I am of opinion that as a general rule, the larger sized grapes, whether native or foreign, are more subject to the above accidents than the smaller sized grapes.

The Lincoln grape was found growing wild on the banks of the Catawba river, and is no doubt an accidental seedling from the common summer grape. It is a rampant grower, making more wood than any other in my collection; the joints long, the young shoots smooth, and of a brighter red than the Isabella or Catawba. The leaf is much smaller than that of the Isabella, obscurely tri-lobed, serrate on the margin; the teeth smaller and more regular than those of the Isabella, and the leaf of a brighter green.

The Lincoln grape is a great bearer; a gentleman of this place tells me he has seen a single vine with fifty bushels on it, and a vine at Mr. Hart's, on the Catawba river, was computed to have borne one hundred bushels the past season.—The bunches are large, beautifully shouldered, and ripen very evenly, and from two to four weeks earlier than the Isabella. The grapes are round, a good size larger than the common summer grape, and, towards the terminal extremity, many of them without seeds. The skin is sweet, thin, dark purple, covered with a light colored blue bloom. Flesh tender and melting, without any pulp, sweet, and a most delicious flavor when fully ripe. The Lincoln grape is not subject to rot or blight, like most other grapes at the South, and I cannot but think it will prove a most excellent wine grape, and hope it may fall into the hands of some one who is willing and qualified to give it a proper trial.

Mine is a grey gravelly soil with a red subsoil; I have manured with stable manure, lime, bone-dust and ashes; my trellis is ten or twelve feet high, vines laid thin, and long; but any rich soil, with vines trimmed so as to have nothing but young and vigorous wood, with plenty of sun and air, will do equally as well as mine. Respectfully yours,

Z. E. BUTT.

We are informed that it would give Dr. BUTT pleasure to forward by mail vine cuttings, to those who have expressed a wish to have them, but the post-master has decided they are not "mail matter." We hope to have other means of getting them, and shall not let an opportunity escape. Accept our thanks.—Eds.

Western Horticultural Review.

THE THIRD and FOURTH numbers of a periodical published under this name, at Cincinnati, (O.) have been received, and we are delighted with them. Each has a beautiful lithographic frontispiece; the latter illustrative of a model Greenhouse, the former the residence of the editor. The work is a monthly of 48 pages—price \$3—devoted to Western Horticulture, and is capably got up. Dr. Warder, the editor, writes with a good deal of grace, and the periodical merits, (if we may judge from what we have seen) as it will no doubt have, the support of the whole West. We should be pleased to have the first and second numbers of the volume. Success.

Omission.

"CAROLINA," by inadvertence no doubt, omitted to underwrite his communication. If he will send us the name, it shall have its place, but we are unwilling to deviate from the rule of declining to publish without it.

From the Laurensville Herald.

Manuring Lands, No. 4.

MR. EDITOR:—In my last I intimated I might give you some other forms of making compost manure. It is well to have at hand a variety of resources, so as to be able to choose the best. I proceed now to execute my promise: In the winter, especially, is the time for the cotton planter to make compost, and I hope, as I ride about, to see them piling up on every farm. Every one that rises, in consequence of the suggestions thrown out in these numbers, I will consider as monuments (pyramids) in approbation of the writer. If they are not so durable as the Egyptian monuments, they will at least be more useful to mankind. When a farmer wishes to improve a distant field, the trouble of hauling is a serious obstacle. In that case much hauling may be avoided by adopting the following plan:

Make three-cornered rail pens, at suitable distances, and fill them up with a layer, first of mould gathered from the woods and on the branches near the fields, six inches deep, and then a layer of stable manure two inches deep, and so on alternately, until the pen is full.—A little ashes, or lime if it can be had, would add to its value. If rain enough to wet the heap does not fall, it ought to be watered. This is pretty near Lord Meadowbank's celebrated compost. I have tried it and found it a good manure.

The following is from an able writer in the Southern Cultivator, who signs his name "Jethro," (vol. 8, page 35.) Dr. Philips considers him one of the ablest writers of the day. It is for making compost with cotton seed. The whole article is well worth reading:

"Compost as follows: a layer of soil from the woods or lots, six inches upon the ground, then a layer of cotton seed, six inches, and so on alternately; dust or cover the layer of mould with half an inch or less of unleached ashes, then the seed, and so on alternately. Leached ashes will answer, but a greater quantity is required. The ash neutralises the acidity of the mud or vegetable matter. After the compost heap is made, cover over with earth, and let it remain until planting time; then slice the heap from top to bottom, mixing all together. (All compost heaps should be cut down in the same way.) He then directs it to be hauled immediately and dropped in the hill or scattered in the drill, and covered as soon as possible to prevent the escape of its volatile atoms.

"Nothing, he says, in all the store house of nature can surpass this compost for all agricultural purposes—it stimulates germination and strengthens the growth of plants—to the husbandman, it is infinitely superior to all the guanos or new-fangled manures that ever taxed his credulity—estimate the value of your cotton seed as one to four of the corn crop, &c. Treasure your seed as so many atoms of gold."

The following is said to be pretty nearly identical with Bomer's (a patent) manure—it was furnished some years ago by a friend in Fairfield, one of the large

est and most successful planters in that thriving district—with this, he informed me, he manured nearly his whole corn crop, dropping a pint on or near the grains of corn in the drill before covering. From this management his last crop had made him on an average a load per acre—much of his land was hilly, stony, and not very rich. Proceed as follows:

Into a square pen eight rails high, put alternate wagon loads of leaves and litter from the woods, the more rotten the better; and well rotted manure from the stables and yards, until the pen is full—pour 60 gallons of a liquid made of the following ingredients, over the pen, viz: 1 peck of salt, 1 peck of lime, 2 lbs. of saltpetre, and 2 or 3 bushels of ashes, in 60 gallons of water. About ten days after putting on the above liquid, pour 60 gallons more of water, and if you have a good supply of ashes, add 2 or 3 bushels to the water. It heats, say in about ten days, and is sufficiently rotted in five or six weeks. When it is found not to be wet enough, more water must be added—any kind of vegetable matter will answer, some sorts taking longer to decompose than others.

And here I will add as a general remark, the more mixed our manures the better—this is the general belief among the farmers in England. To say nothing of chemical affinities, it is found they do not "fire" so much in dry weather—I have not found these mixed manures to fire my cotton in dry weather more than where I have put no manures—besides furnishing a greater variety of food to plants, they are supposed to correct one another.

The reader will have noticed perhaps that there is one kind of manure not noticed above, HOG MANURE. This has been omitted, not because I regard it of no importance, but because, as yet, I do not know any good plan, suited to our habits, for preserving it. Every one must see that with good management a large amount might be made from this source. But having tried no plan that pleases me, I offer none—but Mr. Editor, I will do this—I will be one of a club of 5 or 10 who will give a silver cup worth \$10 for the best essay on making hog compost, to be published in your columns—a committee of three being appointed by the club to award the premium if they think the essay merits it, and to withhold it if it does not merit it—the plan should have a due regard to the health and thrift of the hog. Such a one, giving us all his manure without hurting his health, would be worth a dozen silver cups.

And now Mr. Editor to conclude—it is said of Lord Clive, Governor of British India, when on trial before Parliament for extortion, in making his defence, after showing that the whole of the treasury of India lay at his feet and at his disposal, that he exclaimed, "good God, Mr. Chairman, at this moment I stand amazed at my own moderation!" Does not the farmer of Laurens district, when he surveys his immense resources for improving his lands, like Lord Clive, stand amazed at his own moderation in using them!

FRANKLIN.

Meteorology.

THE following paper on the "subject of Meteorology, in its connection with grain culture," was read in 1849 before the Black Oak agricultural society by its scientific secretary, H. W. Ravenel. The subject is treated in a very able and interesting manner. It embraces one or two points upon which we had intended to give an expression of our views, but it is better said here than we should have done it, and we are pleased with the privilege of substituting it, at least, for the present. We take this occasion to invite the secretary, not only to contribute to our columns, but as often as convenience will allow:

"The subject of Meteorology is one of importance to the planter. Winds and weather, rains and frosts, all affect his prospects, and although both cause and effect are beyond his control, a natural anxiety to know more of these secret agents, makes it always worthy of consideration. We will confine our attention, at present, solely to the subject of temperature.

The question is often asked, at what state of the thermometer will frost be produced? The answer here depends upon the position of the thermometer.—It is very certain that when frost is produced, a thermometer standing in a perfectly exposed place, would fall to 32° of Fahrenheit's scale at least. That is the freezing point; and frost, which is nothing more than frozen dew, cannot be formed at any higher temperature.—When, however, the thermometer is placed under shelter, or against the side of a building or any other object, the mercury may stand 10 or 15 deg. above the freezing point, while frost will be found in open and exposed situations. Here it is affected by causes which it will be necessary to consider.

Radiation of Heat.

It is a law of nature that all bodies are at all times radiating, or passing off in straight lines their heat. This property is entirely distinct from that of reflection. Reflected heat is not retained, but passes off immediately from the surface, at an angle always equal to the angle of incidence. Radiated heat is continually escaping from every portion of the surface of bodies in straight lines or radii. As all bodies possess this property, the effect is, a constant tendency towards an equilibrium of temperature. During the day, the earth, receiving more heat from the sun than is lost by radiation, becomes warmer; but as soon as the heat of the

sun disappears, if there are no clouds above, radiation continuing—the heat is lost in open space—the surface begins to cool, and continues until the heat of the sun is again restored. But if there are clouds above, they receive the radiated heat from the earth, an interchange is established, and the earth cools but little.

We will suppose two thermometers placed, one in an open field where there is no obstruction in any direction to free radiation, and the other against the side of a building, exposed above and on one side. In the first case, radiation continuing uninterruptedly in every direction, the thermometer will indicate the true temperature of objects in the same situation. In the other case, radiation can proceed only one side, consequently less heat will be lost, and the thermometer will indicate a higher temperature.—Again, if a third thermometer be placed under a shelter, against the body of the house, but protected by the shade of the piazza, no heat whatever is lost by radiation, and it then merely indicates the general temperature of the atmosphere. I have ascertained, by frequent trials, that the difference of temperature between thermometers placed, the one under shelter and the other in a perfectly exposed situation, is about 8 or 10 degrees of a clear night; this difference will vary according to the degree of cloudiness or haziness in the atmosphere. The difference in temperature between a thermometer perfectly exposed, and one against the outside of a building, where radiation proceeds only on one side, is 4 or 5 deg.

It will be perceived, from the above remarks, that, in order to understand correctly a thermometrical journal, a knowledge of the position of the thermometer is necessary.

For the sake of convenience in referring to them, thermometers are generally kept in or at the side of a house. If kept always in one place, the whole series of observations are relatively correct, but they may not suit for comparison with those given by a thermometer placed in a different position, unless the proper allowance be made. Hence the variance between observations taken in the same neighborhood.

In keeping the Meteorological Journal for the Society, I have placed the thermometer, during the winter months, against the north side of my house, under the shed of a piazza, where it is not affected by radiation at night, or the heat of the sun by day. In the summer months, the morning and night observations are taken from one placed against the south side of my house, under the piazza shed, and the mid-day observations from one in the body of the house, as far removed as possible from the reflected heat of the sun.

The Journal merely professes to give

the general temperature of the atmosphere, uninfluenced by direct radiation, or the reflected heat of the sun. When, therefore, frost is indicated, whilst the thermometer is noted at 40 or 45 degrees, it must be understood, that when the general temperature of the atmosphere is at 40 or 45 degrees, objects placed under the effects of free radiation, will have fallen to a degree of cold at least equal to 35 degrees of Fahrenheit's scale.

The formation of dew is the effect of radiation. The atmosphere at all times contains more or less of aqueous vapor, held in solution by heat and rendered invisible. Generally, during the hottest weather, there is a moist vapor in the atmosphere. Whenever the heat is abstracted, the vapor, deprived of its solvent, returns to the state of fluid. When objects on the surface of the earth exposed to free radiation become cooler than the surrounding atmosphere, the vapor contained in that portion of the atmosphere in contact with these cooler bodies, is deprived of its solvent and is deposited in the form of dew. The moisture observed on the outside of a glass of ice-water, is produced in the same way.

It has been ascertained by experiment that different bodies possess the property of radiating heat in different proportions. That the leaves of living plants, wool and metallic bodies whose surfaces are roughened, are good radiators, whereas earth, stones, brick, and bright polished metals are bad radiators. This fact accounts for the formation of dew upon the former, when the latter are found dry in the morning.

Although dew is formed more copiously upon living than upon dead leaves, the living plant, possessed of the principle of vitality, and more capable of resisting extremes of heat and cold, will often escape when frost will be found on dead leaves. This is a fact well known to all observers, and adds another to the number of those beneficent provisions, which the great Author of nature has established for the protection and well being of his creatures.

Meteorology, in its effects upon agri-

culture, is at present enjoying the attention of scientific men in Europe and this country. In explanation of the mode in which these investigations are applied, I will here introduce to the notice of the Society, an extract from the report of the Commissioner of Patents for the year 1847. [This extract, too long to be inserted here, may be found on p. p. 96, 97, 98, and 99, of the report of the Commissioner of Patents for 1847, and contains a table of the weather, kept by Mr. Lawes of England during the crop growing season, for the years 1844, '45, and '46, in which the production of crops during those years, was found to accord with the condition of the seasons. A table, somewhat on the same plan, adapted to the cotton growing months, and taken from the Meteorological Journal of this Society, is appended to this paper.]

It may be said, that, as we have no control over the seasons and weather, such information is useless. We contend that every kind of positive information is useful. If we cannot prevent these causes which affect us injuriously, we can, at any rate, know what they are and how they affect us. It is a notorious fact, that when statistical information is collected and preserved, it is never useless. It sets men to thinking—it opens new light to them—it gives them often a hint which may be improved to some valuable purpose. It is a fact unchangeable and unchanging, always reliable, open to all; and, not unfrequently, comes to be used afterwards for purposes which never occurred to the original collectors.

We would, therefore, take this opportunity of urging upon the Society, the importance of collecting and preserving all statistical information in reference to agriculture. For this very purpose our committees are all well arranged and distributed. The machinery is complete, but the impetus to set that machinery is wanting. It is necessary to have the hearty co-operation of all the members to effect this object. An agricultural society cannot remain stationary while all around is in progress. If we do not advance, we shall assuredly be left behind in the great march of improvement.

TABULAR STATEMENT.

Of the mean temperature, number of rainy or cloudy days, and amount of rain in inches, during the cotton growing months, for the years 1846, 1847 and 1848, taken from the Meteorological Journal of the Black Oak Agricultural Society.

	1846.			1847.			1848.		
	Mean Temperature.	Rainy or Cloudy days.	Rain in inches.	Mean Temperature.	Rainy or Cloudy days.	Rain in inches.	Mean Temperature.	Rainy or Cloudy days.	Rain in inches.
April,.....	63.55	16	2.90	65.50	7	0.57	62.80	12	2.73
May,.....	73.24	11	5.36	66.70	19	5.34	77.05	13	5.85
June,.....	75.13	16	7.77	80.66	14	5.72	73.45	12	2.53
July,.....	76.33	61	5.19	82.40	22	5.33	78.33	26	5.16
August,.....	73.46	16	6.45	78.55	24	9.56	78.73	8	1.95
Mean temperature of the 5 months,.....	72.34			74.57			73.99		
Whole number of rainy days,.....		78			86			65	
Total Rain.....			27.67			26.52			13.27

More on Burning Woods.

MESSRS. EDITORS:—The animated discussion that is going on in your paper on the subject of Woods Burning, between "Pry" and "Broom-sedge," must have excited a good deal of interest among your readers. The arguments on both sides are very able and well sustained, and will certainly enable those who have read them attentively to form an opinion on the subject. I have no idea of entering the lists with a view of taking sides, in order to give any advantage in the controversy. Neither of them needs any aid—they both wield a "ready pen," and are capable of taking care of themselves, and so long as the controversy is kept up in the proper spirit, and with the courtesies of genteel debate, it will add to the interest of your paper. There is always spice enough to give a rich seasoning to such debates, and each party will make a "strenuous effort to obtain the victory." In fact it is to be regretted that there are so few subjects in agriculture that admit of the warm and excited feelings of partizanship, or on which there are divided opinions. Hence the superior interest that is given to other subjects—such as religion, politics, &c.—when each party brings to the contest the most excited, and frequently, the most angry and hostile feelings, and strives for the victory as if it were one of personal prowess. Although controversy conducted in this spirit is to be regretted on account of the bad feelings and temper which usually grow out of it, yet the interest and enthusiasm of debate, are heightened by these "*passes of the pen*," as the knights of old performed prodigies of valor, and nerved their arms to deeds of chivalry. I like, therefore, to see animated discussions going on, on any subject, and particularly on agricultural topics. It will enable our farmers to reason on the *why* and the *wherefore*. It will drive them from the beaten track, which has been pursued by them and their forefathers, from time immemorial. This is the great reason why agriculture has advanced so slowly, and has made such small progress in comparison with many other subjects of vastly smaller importance. If one half the zeal and party spirit that are enlisted in politics, were applied to the science of agriculture, if it were regarded as it should be, as capable of engaging the loftiest minds—the deepest researches and the minutest investigations into the laws of nature, and those hidden mysteries which are engaging the most philosophic minds of the age, and by means of their discoveries, reducing them to as much precision and certainty, as the exact sciences—if we measure the importance of the subject, by the grand results which are confidently anticipated in the increased productions of the earth, and the enlarged comforts of its inhabitants, we are not too sanguine in supposing that we are approaching a new era—the triumph of mind over matter, and making it tributary to increased wealth, prosperity and happiness.

There is a practical view of this subject, which is conclusive to my mind, that the practice of *woods burning* retards the improvement of the land, and cuts off that almost inexhaustible supply of material for making manure, and of adding to

the fertility of our cultivated lands. In fact, nature in her grand laboratory, seems to have provided by the deciduous quality of our forest trees, that they should shed their leaves every autumn, in order to supply nourishment when the warmth of the spring calls forth their dormant life. It is thus that nature, which is ever bountiful and lavish in her supplies, provides food for her progeny.—The leaf, after it has performed its office of inhaling food from the atmosphere for the plant, dies and returns to the earth, there to decay and add fresh nourishment, when the season rolls round for the *regeneration* and *resurrection* of the plant; and so of the limbs and of the body of the tree, after they have run their race—after they have reared their tall trunks and stretched forth their giant arms, regarded as the pride and glory of the forest—after they have resisted for ages the tempest in its rude blast—they too grow old, and are unable any longer to retain their colossal strength and vigor, and are with a loud crash returned to the earth from whence they sprang; and by the process of decomposition and decay, made food for other plants. Are we prepared to destroy this beautiful arrangement of nature by the literally destroying element—to war against her most wise and beneficent designs, and to consume in an evil hour, not only the annual stock she has provided for her support, but the accumulated growth of ages, which are constantly being restored to the mother that bore them. When the fire is introduced in our woods, these decayed trunks are quickly caught by the devouring flames, and are left a blackened corpse or consumed to ashes. Whereas if left to the process of nature, and to gradual decay and decomposition, return back to the earth that nourishment for other plants, which they have abstracted from it. Who has not witnessed the increased fertility of the earth under a decayed tree, and so in a smaller degree do the leaves of the forest decay, and restore to the earth an increased amount of fertility.

"the oak looseneth its golden leaves
In a kindly largess to the soil it grew on."

The inference that may be drawn from this universally diffused principle of nature is, that plants feed on each other, and that the endless variety of vegetable tribes that garnish the earth, are sustained by the decay and decomposition of their own kindred. This vegetable *cannibalism*, if I may so term it, is an admirable provision by which the poisonous exhalations from vegetable decomposition, are taken up and rendered innocuous to man and other animals. This accounts for the fact why warm climates are so unhealthy, from an excess or superabundance of vegetable decomposition, and their rapid decay by the heat and moisture of tropical climates. There, the vegetable kingdom riots in the utmost luxuriance—plants arrive quickly at maturity, and as quickly decay; so that the supply of nourishment is continually going on, and poured out in rich profusion. But what is life and animation to plants, is death to man and other animals. It would seem, that burning the woods where there is such an excess of vegetable nutrition and foul sources of malaria, would be very proper as a sanitary resource against those poisonous effluvia which are generated by vegetable decomposition, and which are such a fruitful source of disease and death. Mills, in his statistics of South Carolina, assigns the unhealthiness of our lower country to this cause, and to the exhalations from stagnant water. He says the amount of exhalation from the area of an acre of land, covered with water, in a hot summer's day, is between 17 and 1800 gallons. If this water is stagnant and largely mixed with decayed vegetables, it is not a mystery that pestilence walketh in darkness and glares in the noon day sun. God! protect me from such a climate, and give me the fresh mountain air, in which I may riot and luxuriate in health and vigor of life. If our lower country brethren knew what it was

to enjoy robust—athletic health—to be free from the annoyances and apprehensions of sickness—if they want to feel the spring and elasticity of youth, even in age, they would come up and share with us the blessings of our mountain climate—especially in summer. A kind providence seems to have intended our upper country as a retreat for the inhabitants of our lower country, from the diseases and enervating influence of their climate. But this is foreign from my subject—it was only intended as an illustration of the well known and established operation of natural causes on the climate of a country.—So far as these causes operate on the health of the inhabitants, by the accumulation and decomposition of vegetable matter, I would freely admit, that their sudden destruction by fire, would tend very much to the removal of the evil, and improve the health of a country. But if we look at it in an agricultural point of view, as a means of improvement of the soil, and to the increased productions of our lands, I am compelled to resist the inference and deny the force of the argument. We have seen that vegetables feed on each other. To consume them, by fire, and to evaporate into the atmosphere, what nature certainly intended should be returned to the earth, is most unquestionably going contrary to her laws, and contradicting the wisdom and designs of providence.

But there is another admirable provision in the economy of nature, which the dead leaves of the forest serve, and that is the shelter and protection they afford against the rays of the sun in exhaling the moisture so necessary to the sustenance of the plant. Whether this acts as a manure, or as a solvent to prepare and assimilate other substances which it comes in contact with, is not important to our present enquiry. All that it imports us to know is, that *moisture* is indispensable for the support of vegetable life.—This moisture is continually passing from the earth to the atmosphere, and it is again returned to the earth to nourish plants that grow upon it. But the supply is sometimes interrupted and precarious. It is true, nature does not rely solely on the supply of moisture from the clouds, which the sun so soon evaporates—she calls to her aid two important principles, the philosophy of which, science has unfolded to our view, which diffuses this moisture which has been supplied from the heavens, throughout every pore of the earth, and sparkles in glistening gems, and brilliant dew-drops, in every leaf and fibre, and plant—I mean *capillary* attraction and the formation of *dew*. If, then, nature is so provident of this indispensable ingredient in vegetable nutrition—if she is continually clothing her naked bosom with verdure, and interposing shade and shelter to shield the earth from the scorching and drying rays of the sun, how is it reconcileable to her laws, and those admirable provisions by which she is governed to apply the torch to burn up and to dissipate that moisture which we have seen is the life-giving principle.

Moisture is not only essential to vegetable life—but it is indispensable to the process of decomposition. I think it may be correctly stated, as an invariable law of nature, that vegetable substances in a dry condition, do not decay. It is true that the atmosphere supplies a sufficient moisture to carry on a slow process of decomposition—but some quantity is indispensable. But all moisture is evaporated by fire within its reach, and hence an important law of nature is disturbed and contravened by its action.

And this involves another important principle, the authorities for which, both pro and con, are cited by "Pry." I mean the question whether combustion and decomposition are synonymous in their effects—or whether the ash of a plant or tree is one and the same thing, possessing the same ingredients and efficacy as the *humus* that is formed by the decomposition of the plant or tree. This is a question of pure science, and will have to be determined by chemical analysis.—

But I would enquire whether the question has not already been decided, and does not depend on the mere dictum of Petzholdt or any other chemist. The true theory is, that the ash of a plant or tree, contains all the *inorganic* substances of which it was composed—but the organic is incorporated into the atmosphere in the process of combustion, but remain when decomposed and go to form *humus*. It is true, that *humus* must be converted into carbonic acid gas before it can be taken up by the plant, but it performs several *other important offices* besides generating carbonic acid gas. There may be in the kingdom of nature, some secret yet undiscovered, which the lamp of science has not revealed. We are well assured of one fact, which applies with great force to the question at issue—and that is the *mechanical* effect of vegetable matter in separating the particles of the soil and keeping it open to imbibe moisture and atmospheric manures. This effect is particularly valuable in all clayey soils, and without which, they would become too tenacious, and impervious to the roots of plants. By burning the woods, therefore, we destroy this valuable auxiliary in vegetable economy, and render all clay soils too compact for tender roots of plants to penetrate. Who has not observed the difference between fresh and old land in this respect?—the one porous and friable, and easy to be penetrated by the plant and by the plow after the roots are decayed—the other close and compact in its texture, and cemented to the consistency of a brick-bat, by every shower of rain that falls. But here, again, this great advantage is destroyed by fire, and those substances which were intended as a shelter to protect the earth from the rays of the sun, to retain the moisture so indispensable, not only to the sustenance of the plant or tree, but to the preparation of the food by decomposition, and to open the pores of the earth, are to be destroyed by fire and diverted from the wise purposes for which they were intended.

It would be impossible to say what would have been the effect, if our noble forest had, from time immemorial, been subjected to the action of fire; perhaps the same effect that is seen in the boundless prairies of the West, where as far as the eye can reach an ocean of grass waves, and not a solitary tree is seen to relieve the monotony of the view, or add to the landscape of the scene. Whether the formation of prairies is owing to the action of fire, or to the presence of some condition or constituent of the soil, unfriendly to the growth and nourishment of trees, I shall not pretend to determine. All that I intend to assert is, that the result of the continual action of fire for ages, would have produced, provided there had been combustible matter enough to have fed the flame, an entire destruction of our forests, and the loss of an invaluable material for building, fuel &c.

The Indian burns the woods for the purpose of affording facilities for pursuing game—the stock-raiser, to afford grass for his stock. These two states of society—the savage who subsists on the game of the woods, and the herdsman on the natural range or wild pasturage, are certainly not good authorities for agricultural improvement, unless a retrograde movement from civilization to barbarism is adopted—or unless the wild nomade tribes of Tartary, and of the Pampas of South America, are preferred to the scientific cultivators of Europe. Who would be willing, in the present state of enlightenment, to follow such blind guides? Who would be willing to compare, as a means of subsistence for our stock, the coarse grass of the prairie, or of our mountain range, to the rich and nutritious cultivated grasses—the clover and timothy of the North, or the lucerne and cow-pea of the South—the one as poor porridge—the other as rich, savory soup. I would fain hope that “Broomsedge,” as his name would imply, does not prefer the native grass of our old worn-out fields, to some of those rich exotics, which may be successfully

transplanted here. And if I am not mistaken, even “Pry” has lately given up a favorite theory of his, in relation to broomsedge, by which he formerly amused and entertained his neighbors. I believe his conversion was effected by his purchase of a tract of land in Tennessee, and there witnessing the difference between the clover-hay of that region, and the broomsedge pastures of South Carolina. As he has renounced one error, we may confidently hope he will give up the other, to wit: the indiscriminate burning of the woods.

Again, what would have been the effect of consuming the vegetable deposits which have been accruing for ages, and gradually forming soil on the sterile and blackened lava of the volcano, or on the coral islands of the ocean.—These substances by the action of the atmosphere may be gradually decomposed and thereby form the inorganic material of the soil—but without vegetable matter in some form in a state of decay, the soil would be unfruitful and unproductive. Indeed, we are well assured, that some soils that have an excess of mineral qualities or ingredients in them are unproductive, and in some instances wholly sterile, though the ingredients may be in a proper or healthy proportion, an active or fertilizing principle. For instance, a soil of pure carbonate of lime would not sprout peas—such are some of the marl lands of our lower country, containing from 60 to 90 per cent. of lime; which, altho’ a valuable manure when combined with vegetable matter, is inert and hurtful when found in excess. And so, also, there may be an excess of vegetable matter in soils—such as peaty soils, which require the admixture of some other ingredient to make them productive.

This brings me to the true theory in relation to the question at issue. Wherever there is a deficiency of vegetable matter, or, which is the same thing, wherever, there is a superabundance of inorganic or mineral ingredients in the soil—there reason would dictate that this deficiency of vegetable matter, instead of being further diminished and consumed, should be carefully husbanded and left to the supply which nature has provided by vegetable decomposition.

On the contrary, wherever there is a superabundance of vegetable matter, and a deficiency of inorganic or mineral ingredients—then burn, consume and reduce to ashes, thereby diminishing the excess of the one and supplying the deficiency of the other. The only safe guide to ascertain the true condition of our soil, and to determine whether burning our woods would be proper or improper, is by chemical analysis. As this, however, is a scientific process, we cannot always avail ourselves of this mode. Experience, therefore, and observation, must come to our aid, and decide this question. In the prairies of the West, I have no doubt, that burning the grass is proper, because there is an excess of vegetable matter, the growth and accumulation of ages, and require a mineral ingredient to remedy the evil. This the ash of the plant supplies, and keeps down the superabundance of vegetable matter which would otherwise be formed. But where from the geological formation of the soil, the inorganic supply has been abundant and the vegetable sparse, let us not burn—but add to and preserve. Wherever there is a due and proper admixture of both—there is the perfect soil. Hence we find such in our alluvial lands. Here the disintegration of rocks and vegetable matter in a state of decomposition are, by the action of water, mutually commingled together, and form by their union the most prolific soil.

PENDLETON.

To POSTMASTERS.—Put the name of your office on any paper returned to the publisher, as well as the name of the subscriber to whom it was sent, when any change is made. It must be obvious, that as there are many men of the same name, confusion is likely to be made, by a neglect of this hint.

Agricultural Papers and Magazines.

THE FOLLOWING extract is taken from the “American Farmer,” and is a clipping from a lecture made by Edmund Ruffin, Esq., before the Maryland Agricultural Society for the Eastern Shore, in November last. It alludes to the rapid progress of agriculture during the last few years, and very properly, in our judgment, attributes much of the advancement to papers devoted to this interest. *We can respond most heartily* to the preference which he says *should* be given to publications made at home, over those at a distance.—His remarks also on the system of travelling agents, so often and so profitably practised, deserve notice:

“Notwithstanding all the existing obstacles and difficulties, American agriculture has made much greater progress in the last thirty years, than in all previous time. This greater progress is mainly due to the diffusion of agricultural papers and other periodical publications. In the actual absence of all other means, these publications, defective as they have been, almost alone have rendered good service in making known the discoveries in the science and spreading knowledge of improvements in the art of agriculture. But even this, the only existing aid, is much less effective and beneficial than it might be. The buyers and readers of these publications are comparatively few. Perhaps not one farmer in twenty takes these papers; and even of all those received south of Mason’s and Dixon’s line, perhaps one-half are more northern publications. Every farmer would greatly promote his own instruction and interest by reading such a paper; and still more, by giving his preference and support to publications of his own agricultural region. In this respect, we cannot too closely follow the example of the northern farmers. They sustain well their own agricultural papers, and (with the few exceptions directed by self-interest, give none of their money to any others. The farmers of the slave-holding states, on the contrary, have heretofore offered but little encouragement to the agricultural papers established by their countrymen, and yet have paid full as much to support northern publications, which are much less suitable for their wants, and their benefit. This remarkable and inexcusable mis-direction of southern patronage is not attracted by any superior merit of the northern publications. At first, indeed, they were lower-priced; which advantage was the effect of the much larger demand, and the much larger editions printed and sold. But even this difference of price does not now exist. For there are southern agricultural papers at the now universally established low price of one dollar, which are at least equal, in the quantity and quality of their reading matter,

and greatly superior in particular application to southern husbandry, to any of the northern papers.

The most efficient which has operated to direct so much of southern patronage to the support of northern publications, is neither their greater merit, cheapness, nor any other ground of actual preference. It is to be found in the system of agencies, and especially of travelling agents for some of the northern publishers, traversing every part of our country—and who are enabled to do so almost free of expense, by living on hospitality—and personally and urgently soliciting subscriptions. Most of our people find it difficult to repel personal solicitations of this kind—and still more when urged by persons before received as stranger-guests, and welcomed to their hospitable boards;—and thus, under a kind of duress, they will yield to the bold begging for a northern print the aid which (either from carelessness or indolence,) they had not voluntarily offered to the better, but more modest and quiet claims, of any southern publication. Perhaps there is scarcely one of my present auditors who does not know, from personal experience, something of this state of things. It is full time to change this heretofore usual procedure. It is full time for every farmer of the southern states who has heretofore paid such extorted tribute for northern publications, to withhold it, and direct the amount to one or more of such papers in his own agricultural region. In this region there are already some of the best existing agricultural papers, (which it would be improper for me to designate,) and nothing is required but better general support, to render such papers more numerous, and of very far more beneficial operation.

Every where in the United States a decided preference for low-priced agricultural papers prevails—and it seems that a dollar a year is the highest price that can be obtained for any one in general circulation and popular use. It is true that for so low a price a large quantity of useful matter is supplied, and that practical agricultural instruction is thereby greatly advanced. It is well that the taste of the great majority of readers should be conformed to, in both the contents and the cheapness of these papers. But publications so limited in size, and in price, cannot supply all the instruction needed for agriculture. It is much to be desired that there should also be established some monthly or quarterly journal, of great bulk and higher grade and price, which would present articles more elaborately discussed, or of more scientific character, than are suitable for, or even admissible in, a publication of single sheet, issued but twelve times a year. The British Quarterly Journal of Agriculture, and especially in that portion which contains the papers elicited by the premiums of the Highland Society of Scotland offers an excellent plan for a publication of superior order. And if such a one could obtain support in this country, it would in no respect conflict

with the usual and proper sphere of operation of the existing cheap publications, or lessen their support.

How to Improve Cotton Seed.

EDWARDS, Miss., Jan. 14, '51.

MESSRS. EDITORS:—One of your subscribers requests me to give prices of the cotton seed I have for sale, through your paper. I do so cheerfully, and request you to charge me for such part as you deem to be advertisement, or not, as you please.

Many planters in Georgia and Alabama have written to me, to know how best to improve cotton seed? and as the plan I pursue, is the one I deem best, I will give it.

I have been selecting from the field every year, for the past five years. I begin after the first picking. Usually, we begin to gather cotton about the 15th of August, and can run over the crop in about two weeks, thus I begin to select about the 1st September. I have done it myself, and always notice the negroes when they are put at it. We gather the full, open bolls, from the best stalks—notice particularly the fullest and thrickest stalks—preferring the bolls about the centre of that stalk, and near the body, and do not save the bolls from ends or near the ends of limbs. This cotton is carefully sunned and put by itself—room enough allowed so as not to be pressed together. This cotton is usually the last ginned, and, if not exceedingly careless, there cannot be a faulty seed.

I have selected "*Sugar Beet*" thus, for five years, and I am quite sure, upon my rich fresh land, it not only produces more, but matures earlier than any variety I have yet tried.

"*Brown Seed*," has been tried here three years, the first two lots of seed were either not genuine, or I had the wrong land appropriated. This year, this cotton was on better land, and I was so well pleased as to select from it. Many planters in this county pronounce it better than any other.

Vick's "*100 Seed*" is the very best Mexican, or Petit Gulf, now in this State, I firmly believe. Col. H. W. Vick, has devoted some 10 years to selecting, and experimenting with this cotton, and the "*100 Seed*" is the result. Upon rich land, it is not to be excelled much by the above. This year upon part of my land, it did not do as well as in former years; yet, upon another field, it was better than ever.

The "*Hogan*," does better upon thin land, than either of the above, or Mexican, and this is said of it by many others. Pruet, Cluster, Multiflora, Manybush, &c., &c., are the same, only in different degrees of purity. Pruet, Cluster, and Hogan are here generally identical.

The "*Banana*" is preferable to either, there being more care taken in the purity, as well as a fresher article from the original stock. Of this, I have none now for sale, but can buy them of Col. Hebron, at \$2.50. And I am informed that Gen. G. D. Mitchell, has some 1000 bushels of the same, in S. Carolina, from Mr. David Gibson of Warren county.

The "*Pomegranate*," is the name of the seed sold by Gen. G. D. Mitchell, and the cotton I saw at his place. The growth of this, Banana, Hogan, &c., are identical; so much so, that I insisted upon it to Gen. M., that it was the same, only much purer. Since seeing his cotton, and writing for the Southern Cultivator my opinion of it, I have further examined other cotton, and having learned that Gen. M. bought of Mr. Gibson 350 bushels last year and sold them in Mobile, I am inclined to think the Pomegranate cotton, is Banana seed grown on very poor land, suited to short jointed cotton. If this is really a selection of Gen. Mitchell's, I have never planted any of it.

"*Silk*," I planted this year, upon old, poor, new and good land, giving it a fair trial; and under all circumstances I find it good. This has been known several years in this county, but I never tried it until this year.

"*Jethro*," I have not for sale—it is yet in too small a quantity to permit my selling it at any fixed price. I gave a few away last year, and the grower certifies to me that 304 lbs. gave 106 pounds of lint, he carefully weighing it himself. I am inclined to think this variety will excel any yet tried for its quality. I learn the So. Carolina Mechanics' Institute, selected this variety for the World's Fair. I will have it for sale this fall.

I charge \$5 per sack of 125 lbs., (I rate them at 25 lbs. per bushel) for any seed I sell—unless some one wants a few of yearly selection, and I object to selling them at any price, and place \$5 per bushel on them to avoid selling. I cannot spare the time to cull many seed, and if a full crop, would not do it at even \$5, unless enough could be sold to make it an object.

I believe I have given you all the information. Yours, truly,

M. W. PHILIPS.

Whence do Plants derive their nourishment?

MESSRS. EDITORS:—I do not mean to go into an elaborate discussion of the subject; on the contrary I wish to take a common sense view of it, such as most of your readers may comprehend. This will perhaps be difficult, but I will try.

Liebig and others hold that plants derive only their inorganic or mineral food from the soil, and all the remainder from the air. This I shall call the ash theory, because it looks to the residuc, the ashes, after combustion, for all the inorganic or earthy materials of the plant, and holds that the organic materials have been dissipated in the air. The one I mean here

to defend I shall call the humus or mould theory, because it maintains that vegetable mould has a very important agency in the growth of plants. It does not deny that plants derive carbon from the air, through their leaves, and possibly nitrogen, it admits this, but maintains that they also derive carbon and nitrogen from the soil through their roots.

If the ash theory is correct, then it would seem that it is immaterial whether the soil contained organic (vegetable and animal) materials or not, provided it contained all the inorganic (mineral) materials in due proportion, that having these, the plant would supply itself with whatever else is necessary to its development from the air. Its advocates maintain that all organic matters may be safely and even profitably burnt, provided the ashes are given to the soil. This is the practical, as it is the legitimate inference from the theory. And as the ash of a plant is a very small part, often not one per cent. of its weight, they maintain very plausibly that much useless labor in hauling and spreading might be avoided by reducing all vegetable matters to ashes. These are fair inferences from their doctrines, but will they stand the test of experience? I think not.—Has any one ever seen a very productive soil, productive of the cereals and other cultivated plants, that did not contain a considerable amount—from 2 to 10 per cent.—of vegetable mould? The subsoil often contains the inorganic materials in the same proportions as the soil, sometimes greater; yet where the soil is removed by rains or other means, a sight but too often seen among us, universal experience proves that the subsoil will not produce valuable crops. Every one must have noticed this to his cost. Now that opinion cannot be correct that leads to incorrect practice, and I am persuaded that the doctrines of Liebig, Petzholdt, and others have done injury in this way. They have led an able correspondent of your paper to recommend the burning of woods, and I could mention many other injurious practices, but this must suffice. Now the humus theory, whether correct or not, leads to no such practice. It teaches that mould has an important agency in the growth of plants, that besides the benefit from the ashes it contains, 1st. It opens the soil to the atmospheric influences and the roots of plants, and also the rains and dews, which it retains longer. 2nd. It makes soils warmer by absorbing more heat. 3rd. According to the late very interesting

and important experiments of Prof. Way, mould increases the power of soils to unite with and preserve ammonia, potash, &c. 4th. It furnishes carbonic acid by its slow decomposition, and ammonia which it attracts from the air, to be taken up when dissolved in water, by the roots of plants. And 5th. It may even furnish undecomposed humus, which is soluble with ammonia, to be taken up by the roots of plants and applied directly to their nourishment. For it is as easy to understand how it may undergo the process of assimilation, as it is to understand how lime, potash, &c. may do so.

My limits do not allow me to dwell longer on this part of the subject. It was to get at the practical inferences that I noticed it at all. I readily agree with those who hold the ash theory, that silica, potash, lime, phosphoric acid, &c. are always found in plants, and are absolutely necessary to their perfect organization, and that consequently every good soil must contain them. But the quantity taken up and retained by plants, however necessary, is usually very small, seldom exceeding 1 or 2 per cent. of their whole weight. I cannot help thinking then that as fertilizers an undue importance has been attached to them, and that the present fashion, so prevalent with writers on agricultural chemistry, of urging them so prominently and almost exclusively upon the attention of the practical agriculturist is of injurious tendency. Its tendency is to throw the organic fertilizers into the back ground—to cause the farmer to underrate them, at least to overlook them and go off in a wild-goose chase after gypsum, lime, guano, bone-earth, &c., which are beyond his reach or to be had only in small quantities, while the materials of the compost heap lie reeking under his nostrils unnoticed and untouched. It seems to me that every motive whether of gain or health, requires a different course. Instead of being directed to these far off manures, teach the farmer and planter to look around him and about him, where the supply is inexhaustible, for the materials for fertilizing his lands—to his stables, his cow lot, leaves, straw, mould, and every putrid and offensive thing, whether vegetable or animal—point to these and show the best way to compost them.—And if you please, let him understand too that in doing this, he is gathering phosphates, potash, ammonia, &c., for he is doing it in fact in a double sense, he is applying them directly to his land, and indirectly also by introducing agents that liberate them from their combinations in the soil, where they already exist. Let him understand likewise that while he is thus enriching his fields, he is also purifying the air around his domicile and promoting the health of his family.

There is still another point of view in which we may look at this matter.—Those writers who underrate the importance of humus or vegetable mould, live, generally I believe, in northern latitudes, where probably from their long and cold winters and short summers,

vegetable decomposition goes on more slowly than with us of the south, and where consequently its accumulations are greater. And again, they live in old countries which have been long under cultivation, as in Europe, where from long cropping the soil may be deficient in mineral fertilizers. This last is however, I think, doubtful, as under the present improved system their lands are more productive than ever they were. Here where our summers are long and our winters mild, vegetable decomposition goes on more rapidly, and accumulations are consequently slow. Add to this, our modes of cultivation, in which there is more summer plowing done—more exposure of the soil to sun and winds—than any where else in the world. And does not this teach us that a want of humus is probably one of the principal defects of our soils, and that our main business is to supply this defect? To conclude, do not the views we have taken above, add forcibly to the truth of that homely proverb, that “muck is the mother of wealth.”

LAURENS.

Review of the January Number.

“BERMUDA GRASS.”—We trust it may not be found as troublesome a customer as it has been in some of our agricultural journals. But some of our friends agree that the only way to kill it, is to plow shallow and let the frost and sun do the work.—Doctors will disagree—where is “Paris Mountain?”

“TEA PLANTATION AND VINEYARD,”—Verily Mr. Smith lays about him lustily for a new comer. He must live in an awful rickety country. But he tells us some sad truths withal. We do have a very slippery way of doing things—all the consequence of the one idea—cotton. It never will be otherwise until our agricultural pursuits are more diversified—until we learn something about the power of associated labor—until the means of transportation to market are secured and the education of the people reformed. But Mr. Smith must not be provoked if we don't all embrace his Tea Plant.—Some of us have paid dearly for humbug whistles and would rather wait awhile. If tea is the thing for us we will find it out some day. New England may grow Tea—it can't cotton, that is certain.

“MULES AND HORSES.”—Good, the horse man will have to look up his Pike, this “farmer” has pushed the figures on him—figures they say won't lie.

“FORMATION OF DEW.”—We intended to say something about, but a twenty inch snow fell last night and has put us far below the dew point.

“FARMING, ROTATION, AND MANURING.”—Very good—glad to hear of such things doing on Lynche's creek. That's right,

read the Farmer and Planter, try experiments and tell your own story. To Mr. S.'s manure heap we would add mould or clay one-third, and for five feet cotton drills, write two and a half or three for our region.

"BROOMSEDGE."—We thank Laurens for coming to our aid and albeit Editorial authority is against us, we stick to it that fancy manures are not the thing for us. We do not advocate wasting *any thing*, add every thing that will decompose to the manure heap is our doctrine. But there is too much talk about lime, potash, phos. acid &c. If Prof. Shepard be right in his analysis, what will be the case? Say twenty acres will yield 10,000 pounds of cotton, (not cotton wool.) It will rob the twenty acres of

Potass.....	31 lbs.
Lime.....	17 "
Magnesia.....	3 "
Phos. acid.....	12 "
Sulph. acid.....	1 "

It is not the abundance of ingredients that makes the fertility of the soil, but the presence of *all that are necessary to perfect* the plant. The analysis of the best soils in the world proves this fact incontestibly. We will yield to no one in an ardent desire to diversify our pursuits, and to secure our independence of northern manufacturers. We believe it would be far better for the cotton planter, for every body in the south, that the number of acres planted in cotton should not be increased a rood, and that all surplus capital should be invested in manufactures, improvements, &c. Still we believe there is no danger of over production, the annual consumption for the past five years, has in each been greater than the production, and the increase of supply for the same time over the five years preceding is only $7\frac{1}{2}$ per cent, while the average consumption over the same period is 20 per cent. increase. There is no getting over these facts.

"THE FLY IN WHEAT."—Sulphur!—nonsense!—what stuff! No one who knows any thing of the habits of this insect, would dream of such a thing. Late sowing upon land well broken up after hard freezes may save us from the fall broods, but we still have to run the risk of a spring hatching.

"EDITORIALS."—Mr. Editor seems to have been looking about him—verily he tells strange stories about some of our brethren. Right sirs, rap them over the shoulders hard, they deserve it.

"THE VOICE OF EXPERIENCE."—We like such voices—wish you may hear thou-

sands of them during the new year. It is absolutely disgraceful that such indifference should exist towards Agricultural Journals. Every district can support its political news-paper, yet the whole state cannot pluck up courage enough to sustain a single agricultural dollar Journal. "AFFLECKS ALMANAC."—Glad to see something of the sort, being by a Southron, may be we will learn something about home. Mr. Affleck is a capital writer.

"THE CULTURE OF COTTON."—Mr. Byrd has written a very sensible article. But is not "two inches fall in twelve feet" too much inclination for rows or ditches, say?

"MANURING LANDS."—Franklin has written an article worth the subscription of the Laurensville Herald to every man in Laurens, if they will well consider it.

BROOMSEDGE.

Big Branch, Jan. 6, 1851.

Review of the last Number.

By far the most interesting portion of this communication Messrs. Editors, doubtless, to you, will be the stuffing. It is gratifying to us to add new names to your list, and to give renewed assurance, on the part of old subscribers, that your labors are appreciated and doing good.—We hope—earnestly hope that the day is near at hand, when Agricultural papers will be as anxiously sought after in the South, as Political ones. Political papers could do us good service, and make their own columns far more useful and interesting, if they would give a greater variety of agricultural matter in lieu of much of the political clap trap, machine poetry, maudlin sentimentalities, shocking disasters, hair breadth 'scapes, and Colt's revolving encounters of the day.

Are your columns too crowded for us to slip in a word on the last number?

"REPORT OF COM. ON CORN"—contains some capital things, but needs condensation. We are glad to see farmers bold enough to advocate deep plowing in preparing the soil, and superficial work afterwards. It is high time the old root cutting cultivation should be abandoned, so should the pulling of fodder and hilling up. But if planters down here should plow and hoe four times for corn, their cotton fields would soon go to grass.

"MANURES."—Many thanks to Mr. Blount for his capital letter, there is not a word too much. "I winter my work mules on the good wheat straw"—stick a pin there, Messrs. Editors, till you can

count up the farms in your vicinage whereon wheat straw is treated as a nuisance. It has been the saying of all *wise* old farmers since our boyhood, that "cattle will be lousy that are fed on wheat straw." We expostulated, not long since, with one of our neighbors about throwing away some hundreds of loads of wheat straw. He replied, that "wheat straw had very little strength in it, not worth saving, and that oat straw was good for nothing.

Boussingault thinks differently, and is reckoned good authority.

Wheat straw contains	Oat straw
Phos. acid.....	3.1 3.0
Sulph. ".....	1.0 4.1
Carb. ".....	— 3.2
Chlorine.....	0.6 4.7
Lime.....	8.5 8.3
Magnesia.....	5.0 2.8
Potash.....	9.2 24.5
Soda.....	0.3 4.4
Silica.....	67.6 40.0
Alumina.....	1.0 2.1
Moisture and loss..	3.7 2.9

And this identical individual declined taking the Farmer and Planter, because, as he said, "at our instance he had taken the Cultivator for a year, and found in it pretty much what he had always practised."

"CHEROKEE ROSE HEDGE."—Mr. Henry has given us the best *modus operandi* to go about setting a hedge we have ever seen. The Cherokee Rose, once well set, is a hard customer, but as long as the world is in love with a worm fence, there is but little hope for the rose, the hawthorn or the grand humbug Osage orange to receive its embraces.

"FRUIT AND FRUIT CULTURE."—It is really refreshing to fall upon such a letter, our mouth absolutely watered through the whole of it, and when we came to the miles of walks and drives lined with specimen trees, we called for pen and paper to advertise Big Branch for sale, but our eye falling on Bermuda grass, it came like a wet blanket and cooled us off.—Southern nurseries! right, we have rarely known an instance of success with a northern tree. Good fruit can be grown here, any body who can whittle a stick, can learn to graft a tree. People prate about non intercourse, and, in the next moment, patronise a company of Ohio or Lake Erie grafters, who are travelling over the country, professing to have the finest varieties in the world. If they were persimmons they'd say so.

"RICE CULTURE."—We thank our friend of Natural Grove for his instructions how to make rice, and hope, hereafter, to report progress. He has given us a most graphic picture of that old Risher that lives in every neighborhood—'tis well they don't take the Farmer and Planter, every one of 'em would get as mad as Tucker at such personalities. This fellow is a wag, and not half as green

he makes out—if we thought he was in earnest we would say a word on persimmon beer. E. H. has removed all doubts from our mind about rice.

"SUGGESTIONS TO FARMERS."—That Plough Boy is cut the right way of the leather. Come up gentlemen, one and all—let there be no balky horses—let us put the Farmer and Planter firm on his feet. Put me down No. 2.

"MANURING."—Mr. Wingfield gives us cheering accounts of the improvements in farming effected in Georgia by the Cultivator. We like to see a spirit of assistance springing up in other quarters. Farmers help one another—speak out fearlessly to one another.

"EXTRACTS."—We see another capital one from "Franklin" on manures—these are the kind of productions that will tell. We had discovered years ago, from sheer accident, the value of clay as an absorbent, but did not understand the rationale. On reading Prof. Way's, Mapes' and Thompson's experiments, a new light burst upon us. We know now that it is fact—not accident directs our labors.—Our plan is to run parallel ditches through our lots, throwing the banks on the lower side, and making the water pass through these banks as it passes off. A very practical neighbor laughed very much at us for manuring with red clay—but we turned the laugh before the year was out to our credit.

In reading over the articles on Cotton Culture, one cannot fail to be struck by the system and regularity of Mr. Byrd's entire operations.

"THROWING BREAD AWAY."—A matter well worth looking into. How little do people generally know or think about what they are doing.

We know some farmers who don't believe in book-farming—one of them told us the other day when we asked him to take the Planter, that he never could make books and ploughing run together. He hauls his chaff out on the knolls, throws his wheat straw in his gullies, and says wheat bran has no strength in it—don't care any thing about it after the old woman gets enough to starch his shirts. We employed a new overseer the other day. "Do you read the Agricultural papers?" said he to us since. "Yes," we replied, and his looks told us plain as printing that we would have to stay at home this year. Yours, truly, BROOMSEDGE.

Planting Fruit Trees.

MESSRS. EDITORS:—Mr. AFFLECK of Mississippi in the last number of the Farmer and Planter, has reminded me of an unfulfilled promise, I made you, respecting some arborical operations I have engaged in, since I laid down the quill for the seductions of active life. My endeavor to secure a good supply of fruit for self, people and pigs, is likely to prove successful, and if I am as lucky with this season's planting out, as I have been heretofore, I will have growing about two thousand fruit trees, embracing the Peach,

Nectarine, Apricot, Plum and Cherry, of the stone fruits, and the Pear, Apple, Quince, Fig, Currant, Gooseberry, &c., as well as the *Madeiran* nut or English Walnut, and the famed *Maronia* of France, which is the finely flavored, cultivated Chesnut, abounding in that Republic. All these I can expect to repay me, for I have most honestly provided good root quarters for the whole. For planting out Apple, Pear and Peach trees—in fact all orchard trees—I prepare holes five feet in diameter and about eighteen inches deep; which, I think, with proper after-tillage, and the use of the subsoil plough whilst the trees are young, are sufficiently large. These holes are filled up—first with top-soil—to elevate the young tree to near the original level upon which it stood in the nursery—then with good alluvial compost, intermixed with old ashes, bones, and chips of leather from the shoe-maker's shop; and lastly, I fill up the hole with any good soil near at hand—rejecting entirely the clay, in all cases, except Apricots and Nectarines—for which trees, I use it as a hard-pan top coating. I plant Apples and peaches together, twenty feet apart, alternating the rows one way so as to leave sufficient room, say forty feet, when the peach trees fail. Plums, Nectarines, and Apricots may be planted closer, and what are termed *thick rows*, i. e. full distances one way and half distances the other, is the best mode of planting these trees. The pear, my favorite fruit, I have so far planted separately, at distances of twenty feet apart. In adopting this mode of planting I find upon examination it has been very successful; and as an evidence of the fact, I have only discovered three pear trees, out of as many hundred, planted out last spring, which failed to grow; and these I had no hopes of, when they were planted out, as they were defective and diseased. I lost not a single apple, plum, apricot or nectarine, and but a single peach tree. Many of my apple and peach trees, were planted in new-ground and received no other attention, save a heavy mulching of trash and litter, such as is usually raked up in new-grounds.—These trees grew vigorously—the apple, however, more so than the peach trees—and a fact worthy of notice is, that last week I had my *fac-totum* to carefully examine the roots of the peach trees thus protected, and found but a single tree attacked by the worm, (*Egeria Exitiosa*), which is found in young peach trees at this season of the year. This was in the Snow peach, which has a remarkably tender bark, and the shoots of which, are

all of a beautiful pea-green, and contrasting strangely with the other varieties. I intend the next season to give my peach trees, each, a few bushels of pitch-pine saw-dust, in a conical pile about the stem, and shall try, as an experiment, sheathing the trunks of others with thick paper, for six inches above and two inches below the surface, during the months of April, May and June, when this troublesome jade, with the hard name (*Egeria Exitiosa*) lays her eggs. This latter is practicable, and will, if adhered to, prove a remedy in full I believe. For plums, apricots and nectarines, so liable to the attacks of the curculio, there is no remedy but poultry. Plant these where your poultry have a daily run amongst them. I have adopted this plan, and have not found a single tree attacked by the root-worm in my grounds. It takes more than a dozen hens and a gouty old cock, to keep a few acres of these delicate trees clear of their enemies—a flock of a hundred is not too many. I find them a valuable auxiliary in manuring, as I consider domestic hen-guano, properly tempered down, a good manure for trees the second year of their growth in the orchard. I have now, twenty barrels, gathered from about one hundred and fifty fowls since September last. My mode is to have the hen-houses carefully scraped up once a week and packed with the underlying earth in old lime barrels covered with a top-layer of *gypsum*. It is practicable to save this powerful manure in the winter, but as I make my fowls resort to nature's hen-houses—the trees—in summer, the greatest portion is wasted or washed away by the rains. To return to trees, I think for the pear and apple, the leather trimmings mentioned above, constitute the most valuable and most lasting manure which can be used. Trees manured with this manure, made the stoutest, hardest, and best matured wood I have ever seen, and there is a particular fruit bearing appearance about them, which promises early bearing. If this is proven by the application of this manure—all the fleshings and drippings of leather at the tanneries, with the hair, old lime, &c., would constitute a most valuable source, in addition to the supply from shoe-shops, now hauled off to fill up road gullies near our villages. I must state further, that upon examination I find the particles of leather buried last winter, just twelve months ago, now exhibit but little perceptible decay, and from the fact of its durability will therefore prove most desirable here, when, after planting a tree, we never seem to consider, that as an organized plant (being?) it must have food or perish. I think for peach trees, the best manure, after they are five or six years old, is the droppings of large droves of hogs, which is annually sufficient if they are allowed to pick up the fruit.—With this practice, two good plowings is all that a peach orchard will require; and as for pruning, the simple shortening-in of the previous year's growth to one-half, is all that this tree wants. I have tried the practice, and speak from practical knowledge.

For the quince and the plum, salt, or salt-brine, in moderate quantities I have found a most excellent and invigorating manure. (Don't let your mountain readers stare at this, for a sack of coarse salt will do a hundred trees.) I use the salt which has cured my bacon for this purpose, and find it to answer a capital purpose. Although I did not cultivate some of my trees last season, I do not advise others to follow the same neglect. I would advise all young orchards to be cultivated in potato or cotton crops.—Above all others, keep that old hoary-headed fellow "Broomsedge" out of your orchards—at least keep him from growing amongst your trees. He is useful, however, to tie up the trunks of young apple trees to protect them from the rabbits in winter, and you may go over to neighbor Slouch's old field and always get a supply for this purpose, without letting this worthless grass get a start nearer home. There is no allusion made here, "*pon honor*," to your valuable critic, who comes down *once a month* to his savage feast, like an old eagle, and who, at one fell swoop, may destroy my plum orchard, chicken-scavengers, and all.

As I have been most careful in my selection of fruits, and have almost all the domestic and foreign varieties of note, I hope to be able to give your readers, when the *Farmer and Planter* shall have 20,000 subscribers, a careful comparison of their relative merits. I shall for your next Number, send you an account of a new mode I have adopted of planting out vines, which has been successful so far, and which should have been published this month in order to be available, to others, this season; but I have extended my scribblings, I fear, too far already, for your patience. A. G. SUMMER.

Review of S. C., Feb., 1851.

NOTICE.—To those of our subscribers of last year, who have not ordered a discontinuance, we send this number of the second volume, and hope to be allowed to send the others; if, however, any will discontinue, we request them to return promptly to us the number that we may put it in another place. We also send to a few gentlemen, known to take an interest in agriculture, whose names are not on our books. Our terms may be found in the prospectus on the last page, and if any are not inclined to encourage the periodical, they will please so signify by returning, immediately, the paper.

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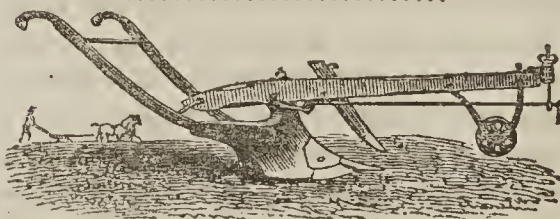
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